

# **FINDING OF NO SIGNIFICANT IMPACT**

## **Falcon I Launch Vehicle Program from SLC-4W**

### **Vandenberg Air Force Base, California**

Pursuant to provisions of the National Environmental Policy Act (NEPA), 42 U.S. Code 4321 *et seq.*, implementing Council on Environmental Quality (CEQ) Regulations, 40 Code of Federal Regulations (CFR) 1500-1508, and 32 CFR Part 989, Environmental Impact Analysis Process (EIAP), the U.S. Air Force (Air Force) conducted an assessment of the potential environmental consequences of accomplishing refurbishment of Space Launch Complex (SLC)-4W and launching the Falcon I vehicle from said facility on Vandenberg Air Force Base (AFB).

Vandenberg AFB is headquarters to the 30th Space Wing, the Air Force Space Command unit that operates Vandenberg AFB and the Western Range. Vandenberg AFB operates as a missile test base and aerospace center, supporting west coast space launch activities for the Air Force, Department of Defense, National Aeronautics and Space Administration, and commercial contractors.

Vandenberg AFB is located on the south-central coast of California, approximately halfway between San Diego and San Francisco. The 99,099-acre base extends along approximately 35 miles of the Santa Barbara County coastline.

In 2003, Space Exploration Technologies, Inc. (SpaceX) prepared a Final Environmental Assessment (EA) for the Falcon Launch Vehicle Program (Falcon Program), here forward referred to as the Falcon EA (SpaceX 2003), which assessed the potential environmental impacts resulting from the establishment and operation of the Falcon Program at SLC-3W, Vandenberg AFB.

This EA, incorporated by reference in this finding, is intended to supplement and update the previous NEPA evaluation of implementing the Falcon Program as analyzed in the Falcon EA. This EA considers the potential impacts of the Proposed Action on the natural and human environments, both as a solitary action and in conjunction with other similar projects.

## **PROPOSED ACTION**

The Proposed Action consists of performing the following refurbishments in support of capability to launch from SLC-4W, as well as operating the Falcon I Launch Vehicle Program from SLC-4W.

- The launch mount would be modified to accommodate the stool previously residing at SLC-3W.
- Permanent aboveground piping to facilitate the transfer of propellants from the tankers to the launch vehicle would be installed.
- The portable deluge water system previously in place at SLC-3W would be transported and connected to the deluge water line at SLC-4W. The ditch leading to the retention basin would be resealed.
- The launch pad power configuration would be updated to provide 3-phase 480 voltage AC 100 ampere service on the pad surface. The source would be distributed by connection of a power cable (pigtail) to an equipment trailer located a safe distance from the booster to avoid damage during launches. The equipment trailer would contain necessary mini-substation and power distribution to supply power, as well as the required backup power system.
- Five equipment racks and five 120 volt 30 ampere circuits would be installed in the Launch Services Building at SLC-4W.

- Launch pad support systems, such as lighting towers, would be refurbished or replaced if required.
- The generator/distribution would be repaired or a portable generator would be used to restore emergency lighting.
- Pad access stairway steps on the south side of SLC-4W launch pad would be repaired and the missing planks would be replaced.
- SpaceX would install cameras on the existing camera mounts.
- Other minor rechecks, repairs, or modifications would occur as necessary.

Details on the operation of the Falcon Program, including the Falcon I, were described in Section 2 of the Falcon EA, incorporated by reference. One launch of the Falcon I vehicle would occur in 2005, and two launches are planned for 2006. After that time, up to a maximum of two Falcon I launches per year would be scheduled. On a per-mission basis, launch campaigns are expected to last from four to eight weeks. During a launch campaign, an average of 10 to 12 SpaceX employees would be present at SLC-4W, with a peak of 25 personnel for about one week.

Under the No-Action Alternative, the Falcon Program would operate out of SLC-3W. This action was discussed and analyzed in detail as the Proposed Action in the Falcon EA, incorporated by reference.

## **SUMMARY OF FINDINGS**

The analyses of the affected environment and environmental consequences of operation of the Falcon Program completed in the Falcon EA, incorporated by reference, found that there was no impact or less than significant impact to the natural or human environment from the operation of the Falcon Program from SLC-3W. A Finding of No Significant Impact was issued on 17 November 2003 for the operation of the Falcon Program from SLC-3W.

The analyses of the affected environment and environmental consequences of implementing the Proposed Action including refurbishment, as presented in the EA, concluded that no adverse effects would result to Air Quality (Section 4.1), Cultural Resources (Section 4.3), Hazardous Materials/Hazardous Waste Management (Section 4.4), and Water Resources (Section 4.5). In addition, no adverse effects would result to Biological Resources (Section 4.2) from refurbishment activities. Operation of the Falcon I Program from SLC-4W has the potential to result in minor temporary disturbances to special status wildlife species. Measures described in the Biological Opinion for the Titan Space Launch Program from SLC-4 (1-8-95-F/C-29) and NOAA Fisheries Letter of Authorization for incidental harassment of marine mammals, would be implemented for the Falcon I Program from SLC-4W to monitor and minimize impacts to wildlife species. An informal consultation with U.S. Fish and Wildlife Service (USFWS) was completed on 12 August 2005, and the USFWS concurred with the Air Force determination that the Falcon Program at SLC-4W would not be likely to adversely affect listed species in a manner or to an extent not already considered in the Titan Biological Opinion. Finally, cumulative impacts resulting from the operation of the Falcon I Program from SLC-4W, and refurbishment activities at SLC-4W, would be less than significant when considered in conjunction with recent past and future projects within the project area.

## **FINDING OF NO SIGNIFICANT IMPACT**


Based upon our review of the facts and analyses contained in the attached EA, and the 2003 Falcon EA, conducted in accordance with the provisions of NEPA, the CEQ Regulations, and 32 CFR Part 989, we conclude that the Proposed Action should not have a significant environmental impact, either by itself or cumulatively with other ongoing projects at Vandenberg AFB. Accordingly, an Environmental Impact Statement is not required. The signing of this Finding of No Significant Impact completes the environmental impact process.

**FINDING OF NO SIGNIFICANT IMPACT  
CONCURRENCE PAGE**

Supplemental Environmental Assessment for the Falcon I Launch Vehicle Program from SLC-4W,  
Vandenberg Air Force Base, California

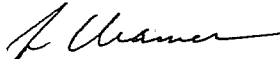
I concur with the Finding of No Significant Impact (FONSI)

**Environmental Protection Committee Approval:**

  
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JACK WEINSTEIN, Colonel, USAF  
Commander, 30th Space Wing  
Chairman, Environmental Protection Committee  
Vandenberg AFB, CA

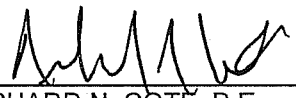
10 Sep 05  
Date

**Judge Advocate Approval:**

  
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GARY M. KRAMER, MAJ, USAF  
-for- DOUGLAS G. MURDOCK, Lt Col, USAF  
Staff Judge Advocate  
Vandenberg AFB, CA

7 Sep 05  
Date

**Squadron Approval:**

  
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RICHARD N. COTE, P.E.  
Deputy Base Civil Engineer, 30th Civil Engineer Squadron  
Vandenberg AFB, CA

6 Sep 05  
Date